

KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.

N-alkoxymethyl ethylenimines. Izv. AN SSSR, Ser. khim. no.4:740-  
743 '65. (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR.

KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.

N, N'-methylene- and benzylidenebisethylenimines. Izv. AN SSSR.  
Ser. khim. no.3:567-570 '65, (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR.

KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.

Cleavage of asymmetrical heminal amines. Izv. AN SSSR. Ser. khim.  
n. 564-567 '65. (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR.

ILLEGIBLE

KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.

New method of synthesizing ethylenimine derivatives. Izv.  
AN SSSR. Ser. khim. no.8:1554 Ag '64. (MIRA 17:9)

1. Institut khimicheskoy fiziki AN SSSR.

L 41407-65

ACCESSION NR: AT5003262

practical use of radioprotective agents, the authors recommend that investigations be carried out in the following directions: a study of the pharmacodynamics of radioprotective agents with differentiation between the side effects and those determining their protective action; the combined use of various compounds both for enhancing their protective action and for reducing their toxicity; a study of the effect of protective agents against local irradiation on the radiosensitivity of individual tissues; development of protective methods against fractional irradiation; an analysis of the relation between radiation dose, dose of the protective agent, and the protective effect; a study of the possibility of the topical use of agents to protect healthy tissues in areas being irradiated; a search for ways to prolong the protective action applicable to specific conditions of radiation therapy; a study of the possibility of a differential alteration in the radiosensitivity of healthy and neoplastic tissues by means of radioprotective and sensitizing agents both in radiation therapy and in combination with chemotherapy; and the search for new agents and means of protection against radiation. Orig. art. has 1 table and 10 chemical formulas.

ASSOCIATION: None

SUBMITTED: 11Jul64

NO REF SOV: 106

Card 3/3 *am*

ENCL: 00

SUB CODE: 13

OTHER: 132

L 41407465

ACCESSION NR: AT5003262

agents, i.e., inactivation of radicals, protection by modification of radiosensitivity due to changes in the physicochemical environment and by modification of radiosensitivity due to chemical combination of target molecules with organic compounds, and the oxygen effect. The authors next review the world literature on investigations using model systems (physical, chemical, physicochemical, and biochemical), using diverse vegetable, microbial, and animal objects. The main groups of radioprotective agents consist of the mercaptoalkylamines and indolylalkylamines. The protective action of other compounds is also reviewed: EDTA, BAL, chlortetracycline, sodium ribonucleate, calcium pantothenate, ethyl palmitate, tranquilizers, antihistamines, vitamins, sex hormones, folic acid, heparin, etc. The combined use of many protective agents has been shown to be of great promise. The suggested use of nontoxic inhibitors of free-radical reactions for protection against radiation damage is examined. The authors and their review with an examination of the practical aspect of using radioprotective agents. They point out three basic factors complicating the practical use of such protective agents: 1) During radiation therapy the protective agent must accumulate primarily in healthy tissues and secondarily in neoplastic tissues; 2) the narrow therapeutic range of the protective agents and their side effects; and 3) the ineffectiveness of the agents following fractional irradiation. To overcome the obstacles to the

Card 2/3

L 41407-65 EWG(j)/ENT(m) GS

ACCESSION NR: AT 5003262

S/0000/64/000/000/0066/0100

AUTHOR: Yarmonenko, S. P.; Shashkov, V. S.; Kostyanovskiy, R. G.

g  
B+1

TITLE: Chemical means of preventing radiation damage

SOURCE: AN SSSR. Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii. Vliyaniye ioniziruyushchikh izlucheniy na organizm. Problemy transplantatsii i regeneratsii 1962 (Effect of ionizing radiation on organisms. Problems of transplanting and regeneration, 1962). Moscow, 1964, 66-100

TOPIC TAGS: radiation damage, chemical radiation protection, oxygen effect, chromosomal aberration, free radical, antiradiation drug, radioprotective agent

ABSTRACT: The authors attempt to analyze the experimental work carried out in recent years in the Soviet Union and abroad in model radiation experiments at the molecular and cellular level and on intact organisms and to relate the results to the possibility of using chemical agents in the protection of man against radiation. Antiradiation agents are classified in relation to three aspects: their chemical characteristics, pharmacological properties, and protective action; the last one, the mechanism of action, is preferred by the authors. A review is given of the contemporary opinions as to the mechanism of action of radioprotective

Card 1/3



KOSTYANOVSKIY, R.G.; BYSTROV, V.F.

Structure and dual reactivity of N-ethyleneiminocarbinols.  
Dokl.AN SSSR 148 no.4:839-842 F '63. (MIRA 16:4)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom  
V.N.Kondrat'yevym. (Methanol) (Chemical structure)

KOSTYANOVSKIY, R. G.; BYSTROV, V. F.

$\alpha$ -Aryl-N-ethyleniminocarbinols. Izv. AN SSSR. Otd. khim.  
nauk no.1:171-173 '63. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.  
(Ethylenimine) (Carbonyl compounds)

KOSTYANOVSKIY, R. G.; PAN'SHIN, O. A.

N-piperidinecarbinol. Izv. AN SSSR. Otd. khim. nauk no.1:  
182-186 '63. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Piperidinemethanol)

BYSTROV, V. F.; YUZHAKOVA, O. A.; KOSTYANOVSKIY, R. G.

Gammet constants of the ethylenimine cycle. Dokl. AN SSSR  
147 no.4:843-845 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom  
V. N. Kondrat'yevym.

(Ethylenimine) (Heterocyclic compounds)

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.

N-ethylenimination of primary amines. Zhur.ob.khim. 32 no.8:2743-  
2744 Ag '62. (MIRA 15:9)

1. Institut khimicheskoy fiziki AN SSSR.  
(Amines) (Ethylenimine)

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.; BYSTROV, V.F.

Reactions of ethyleniminocarbinos with diazo compounds. Izv.AN SSSR.  
Otd.khim.nauk no.9:1666-1669 S '62. (MIRA 14:10)

1. Institut khimicheskoy fiziki AN SSSR.  
(Methanol) (Diazo compounds)

KOSTYANOVSKIY, R.G.; BYSTROV, V.F.

Dual-character reactivity of N-ethylensiminocarbinal. *Izv.AN*  
SSSR.Otd.khim.nauk no.8:1488-1491 Ag '62. (*MIRA* 15:8)

1. Institut khimicheskoy fiziki AN SSSR.  
(Methanol) (Imines)

KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.; BYSTROV, V.F.

Reaction of N-ethylene iminomethylation. Izv. AN SSSR. Otd.khim.  
nauk no.5:931 My '62. (MIRA 15:6)

1. Institut khimicheskoy fiziki AN SSSR.  
(Ethylene) (Methylation)



KOSTYANOVSKIY, R.G.

Reaction of ethylenimine with carbonyl compounds. Dokl. AN SSSR  
139 no. 4:877-879 Ag '61. (MIRA 14:7)

1. Predstavleno akademikom I.L. Knunyantsem.  
(Ethylenimine) (Carbonyl compounds)

KOSTYANOVSKIY, R.G.

Anionotropic rearrangement during the reaction of  $\beta$ -chloropropionic acid with phosphoric anhydride. Zhur. ob. khim. 31 no.4:1402  
Ap '61. (MIRA 14:4)  
(Propionic acid) (Phosphorous oxide)

KOSTYANOVSKIY, R.G.

Reaction of ethylenimine with formaldehyde. Dokl. AN SSSR 135  
no.4:853-856 '60. (MIRA 13:11)

1. Predstavleno akademikom I.L.Knunyantsom.  
(Ethylenimine) (Formaldehyde)

The Mutation Activity of Some Inhibitors of  
Cholinesterase

S/020/60/131/01/053/060  
B011/B009

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute  
of Chemical Physics of the Academy of Sciences, USSR)

PRESENTED: September 28, 1959, by N. N. Semenov, Academician

SUBMITTED: September 17, 1959

Card 3/3

The Mutation Activity of Some Inhibitors of  
Cholinesterase

S/020/60/131/01/053/060  
B011/B009

sulting lethal mutations with the incidence of spontaneous mutation in the sex chromosome ( $1 : 700 + 1 : 1000$ ) shows that IMPhF is able to increase the incidence of hereditary shifts approximately to the hundredfold. Its effect probably surpasses that of short-wave irradiation. Thus this new transgenation factor is of great interest for industrial (antibiotics production) and agricultural selection. The authors go on to quote exclusively western biochemical papers (Refs 10-24) to cast light on some aspects of the mechanism of intervention of IMPhF into the autocatalysis. These data are of interest particularly in connection with the high cholinesterase content of the cell nuclei (Ref 10). All the data cited permit the assumption that a direct phosphorylation is responsible for the mutagenesis of the chromosome substrate, above all the protein part of the gene. Most probably the substances in question are the amino acids serine and tyrosine. This latter possibility may prove to be the source of a certain specificity of the mutagenic effect. There are 1 table and 24 references, 2 of which are Soviet.

Card 2/3

AUTHORS: Rapoport, I. A., Kostyanovskiy, R. G. S/020/60/131/01/053/060  
B011/B009

TITLE: The Mutation Activity of Some Inhibitors of Cholinesterase

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 191 - 194  
(USSR)

ABSTRACT: In the present paper the authors report on their experiments with the isopropyl ester of methylphosphinic acid fluoride (IMPhF). They succeeded in causing hereditary changes in the common fruit fly *Drosophila melanogaster* (24-48 hour-old larvae as well as full-grown flies) by means of this substance. The insects were exposed to IMPhF vapor after an equilibrium concentration of this substance had been reached in the vessel. In the first experiment series the concentration was 12 mg/l, in the second series 8.5 mg/l. The insects were exposed to the vapor for 3-25 minutes. In the second series a second treatment was carried out. The effect of IMPhF was analyzed with regard to the incidence of mutations according to sex. For this purpose the strain  $y^{3P}$  of the common fruit fly, which had been used in several earlier experiments, was used. The male insects of this strain were crossed with females of the strain Bcl/white. Table 1 gives the results. The comparison of the re-

Card 1/3

ZHEREBCHENKO, P.G.; GOLOVCHINSKAYA, Ye.S.; KOSTYANOVSKIY, R.G.; KRASNYKH,  
I.G.; KUZNETS, Ye.I.; MAGIDSON, O.Yu.; MURASHOVA, V.S.; PASTUKHOVA,  
I.S.; PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.; TER-VARTANYAN, L.S.;  
ZHKHINVADZE, K.A.; SHASHKOV, V.S.; SHCHUKINA, M.N.

Role of oxidative deamination in the mechanism of radiation  
protection afforded by some amines. Zhur.ob.biol. 21 no.2:  
157-160 Mr-Apr '60. (MIRA 13:6)  
(RADIATION PROTECTION) (DEAMINATION)

- A Comparative Analysis of the Biological Effect of Ionizing Radiation and of Methyl-bis-( $\beta$ -chloroethyl)-amine (HN2) Within a Large Range of Doses SOV/20-127-6-42/51

spite of these differences, the principal similarity of the two said dependences cannot be denied. Even if the complicity of the pathological process caused by the HN2-intoxication is considered, 2 leading detrimental mechanisms can be distinguished which bring about the death: a) In the range of the horizontal part of the curve, the detrimental effect on the rapidly dividing tissues, particularly the blood-forming ones, seems to be decisive; b) In the interspaces b and v, the animals die at symptoms of a detrimental effect to the central nervous system. The 5 interspaces by Rayewskiy only reflect 2 mechanisms of the radiation death. The two mechanisms must, however, not be opposed to each other. There are 1 figure, 1 table, and 7 references, 4 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences, USSR)

PRESENTED: April 6, 1959, by N. N. Semenov, Academician

SUBMITTED: March 31, 1959

Card 3/3



A Comparative Analysis of the Biological Effect of      SOV/20-127-6-42/51  
 Ionizing Radiation and of Methyl-bis-( $\beta$ -chloroethyl)-  
 amine (HN2) Within a Large Range of Doses

In connection with the deliberations previously expressed (Ref 5) by the authors concerning the utility of radiomimetic representation of radiobiological effects, they investigated the detrimental effects by doses of from 1 to 2,000 mg/kg of HN2 administered intraperitoneally to 568 white mice in the form of an aqueous hydrochloride solution (0.1-0.5 ml). Figure 1 shows the dependence of the average lifetime on the HN2-dose as a logarithmic curve, as compared to the Rajewski-curve (Ref 1). Both curves coincide at one point which corresponds to the minimum, absolutely lethal, doses (750 r and 4 mg/kg). Already a casual comparison of these two curves excludes any doubt about the close relationship of the phenomena represented by them. The blood investigation showed that in the case of HN2-doses lying on the horizontal part of the curve, death occurs in connection with an extensive suppression of blood formation (Table 1). This agrees with the results obtained during the "acute" form of radiation disease (L. F. Semenov, Ref 3). Besides the above analogies in the character of the two curves, also very interesting differences are found. In

Card 2/3

17 (10,12)

AUTHORS: Kostyanovskiy, R. G., Yarmonenko, S. P. SOV/20-127-6-42/51

TITLE: A Comparative Analysis of the Biological Effect of Ionizing Radiation and of Methyl-bis-( $\beta$ -chloroethyl)-amine (HN2) Within a Large Range of Doses

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 6, pp 1294 - 1296 (USSR)

ABSTRACT: There is a characteristic dependence of the lifetime of mammals on the irradiation dose (Refs 1,2). Rayewskiy et al distinguish 5 ranges of doses which, in their opinion, reflect independent detrimental mechanisms: they cause the death of test animals (100-1200; 1200-15,000; 15,000-30,000; 30,000-100,000; >100,000 r). In the second of these ranges, the lifetime is independent of the dose, and is 3-5 days on an average. The lifetime is rapidly reduced with an increase in the dose, and at 100,000 r death occurs during irradiation. From 30,000 r onward, spasms and other symptoms of a detrimental effect on the central nervous system occur. At doses of 20,000-50,000 r, an independent detrimental mechanism - the damage of the nerve centers - is said to act in contrast to the "peripheral" or "reflex" mechanism, the latter occurring with smaller doses (Refs 3,4).

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SOV/20-127-5-53/58

The Effect of Methyl-bis-( $\beta$ -chloro Ethyl)-amine (HN2) on Frogs Under Hibernation Conditions

within the following days: 5-12, 1-3 days, 3-6 hours respectively; or 30 days (animals did not die), 5-12, 3-4 days respectively at low temperature. The frogs treated with 40 mg/kg HN2 showed under the control conditions ( $18-20^{\circ}$ ) after 2 days the symptoms of the radiation disease and died after 3-6 days. Figure 1 shows the dynamics of the dying. No satisfactory explanation exists for the time being for the deceleration of the radiation disease by low temperatures. Most of the research workers assumed a deceleration of the metabolism processes. The authors consider the mentioned phenomenon to be unequivocally clarified: the initially mentioned intermediate products react practically instantaneously with the biosubstrate at usual temperatures. The results obtained agree well with several experimental facts (Refs 16, 25, 30). There are 2 figures and 30 references, 7 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences, USSR)

Card 3/4

SOV/20-127-5-53/58

The Effect of Methyl-bis-( $\beta$ -chloro Ethyl)-amine (HN2) on Frogs Under Hibernation Conditions

the rate of which is bound to depend on the temperature. The radiation disease of frogs (Refs 5-17), mice (Refs 18-21), rats (Refs 18,22), *Spermophilus* (Refs 23,24), and *Myoxis* (Refs 25-27) develops extremely slowly at 0-12°. The latent period and mortality characteristic of the concerning dose occur at room temperature (Refs 16,25). The data on the temperature dependence of the alkylating agents are very rare; thorough investigations of the effect on the entire organisms are not known to the authors. In the present paper the intoxication course with HN2 at low temperatures was compared with analogous data on the radiation damage (Ref 16). The experiments were carried out with 100 female and male grass frogs (*Rana temporaria*). The experimental frogs were kept 24 hours before the introduction of HN2 at 0-1°, the control animals put into a thermo-chamber (18-20°). Both groups had a biological control (20 intact frogs each of them, kept under analogous conditions). HN2 was introduced as aqueous hydrochloride solution in doses of 40, 60, and 200 mg/kg into the leg muscles of the experimental animals. The control animals died according to the above doses

Card 2/4

17(10)  
AUTHORS:

Yarmonenko, S. P., Kostyanovskiy, R. G.

SOV/20-127-5-53/58

TITLE:

The Effect of Methyl-bis-( $\beta$ -chloro Ethyl)-amine (HN2) on Frogs Under Hibernation Conditions

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1125-1127 (USSR)

ABSTRACT:

The chloro ethyl amines, especially HN2 are typically radiomimetic substances (Refs 1,2). They reproduce distinctly the radiobiological effect (Refs 1-8). The analogy in the effect of the radiations and HN2 also concerns the preservatives against the damage caused by them (Ref 9), e.g. the radio preservatives of the mercamine type (Refs 10-14). All that proves the commonness of the concerning mechanisms in certain stages of the biological effect of the two mentioned factors. The authors assume that the radiobiological effect is caused not only by the short-lived radicals ( $\text{HO}_2$ , OH, H), but also by more stable intermediate products of the latter. Therefore, they say that HN2 imitates the effect of these intermediate products. In this connection it is important that the radiation- as well as the radiomimetic effect are based upon certain chemical reactions

Card 1/4

KOSTYANOVSKIY, R.G.; PROKOF'YEV, A.K.

Aminomethylstannanes. Izv. AN SSSR Ser. khim. no.1:175-178 '65.  
Izv. AN SSSR Ser. khim. no.1:175-178 '65.

(MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.

KOST'YANOVSKIY, I.A.; PRILUTSKIY, G.Ya.; SHTERN, M.A.; GORELIK, G.N.;  
REZKOVA, F.I.

Introducing a new method for the production of zinc oxide for  
needs of the paint and other branches of industry. A.K.  
Evdokimova, M.V.Potapov, A.K.Shakhnazarov. Remarks by I.A.  
Kostianovskii and others. Authors' response. TSvet,met. 35  
no.12:69-72 D '62. (MIRA 16:2)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy  
nikelevoy promyshlennosti (for Kost'yanovskiy, Prilutskiy).
2. Gosudarstvennyy nauchno-issledovatel'skiy i projektnyy  
institut lakokrasochnoy promyshlennosti (for Shtern, Gorelik).
3. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy  
promyshlennosti tsvetnoy metallurgii (for RezkoVA).  
(Zinc oxide) (Evdokimova, A.K.)  
(Potapov, M.V.) (Shakhnazarov, A.K.)

SOV/32-24-10-5/70

The Determination of the Phase Composition of the Ginders of Silicon  
Alloys

ASSOCIATION: Chelyabinskiy ferrosplavnyy zavod  
(Chelyabinsk Ferro-Alloys Works)

Card 2/2



AUTHORS: Babayev, M. V., Kostyanovskaya, N. M. SOV/32-24-10-5 /70

TITLE: The Determination of the Phase Composition of the Cinders of Silicon Alloys (Ob opredelenii fazovogo sostava shlakov kremnistykh splavov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1183-1184 (USSR)

ABSTRACT: The data on an ordinary chemical analysis are rather insufficient in characterizing the cinders of silicon alloys. The components of the phases must be known in order to gain an insight into the melting technology. In the laboratory of the works mentioned in the association a method was worked out for determining silicon carbide and silicon oxide (SiO) in cinders. The other ingredients of the cinders are determined according to usual methods. Exact descriptions of the course of the analysis are given for the silicon carbide determination, the determination of the elementary silicon, and of silicon oxide determination. A formula for calculating the silicon oxide- and elementary silicon content is given as well. In all determinations a weighed sample of 0,25 g of the fine-ground cinder was used.

Card 1/2

32-2-56/60  
The Determination of Copper, Bismuth, Tin, Antimony, Arsenic and Lead in  
Ferrotungsten

by S. Yu. Faynberg (reference 1). There is 1 reference, which  
is Slavic.

ASSOCIATION: Chelyabinsk Ferroalloys Works (Chelyabinskiy zavod ferrosplavov)

AVAILABLE: Library of Congress

1. Copper-Determination
2. Bismuth-Determination
3. Tin-Determination
4. Antimony-Determination
5. Arsenic-Determination
6. Lead-Determination
7. Ferrotungsten-Contamination

Card 2/2

Card 2/2

*Kostyanovskaya, N. M.*

30-2-50/60

AUTHORS: Kostyanovskaya, N. M. , Babayev, A. V.

TITLE: The Determination of Copper, Bismuth, Tin, Antimony, Arsenic and Lead in Ferrotungsten (Opredeleniye medi, vismuta, olova, sur'my, mysh'yaka i svintsa v ferrovol'frane)

PERIODICAL: Zavodskaya Laboratoriya, 1960, Vol. 26, No. 1, pp. 251-255 (USSR)

ABSTRACT: More expedite methods of the determination of the elements mentioned in the title are applied in the Laboratory of the Institute for Ferrous Alloys in Chelyabin. The exact course of analysis of every method of determination is given, according to which copper is determined iodimetrically, tin by means of the usual iodide method with an accuracy of  $\pm 0.01\%$ , arsenic by means of the method of Gutzeit, bismuth by means of tin chloride and calium iodide by color comparison with a standard sample containing a specified amount of bismuth, antimony colorimetrically, where stress is laid upon the sequence of the addition of reaction components, and lead by color comparison with a standard sample containing molybdenum. All these determination methods were already described

Card 1/2

BARDYSHEV, I.I.; SKRIGAN, A.I.; ROMAN, L.V.; KOST'YANOVA, S.S.

Chemical composition of dry-distilled turpentine obtained from pine stumps which remained in peat deposits for a thousand years. Zhur. prikl. khim. 34 no.2:440-445 F '61. (MIRA 14:2)

1. Belorusskiy lesotekhnicheskiy institut imeni S.M.Kirova i Institut fiziko-organicheskoy khimii AN BSSR.  
(Turpentine)

KOSTYANOV, A., inzhener.

Automatic machine for cutting brick clay. Stroi.mat., izdel.1  
konstr. 2 no.6:22-23 Je '56. (MLRA 9:8)  
(Brickmaking machinery)

KOSTYANOV, A., inzhener.

Conveyer belts to the melting chamber and for removal of bricks  
from the kiln. Stroi.mat., izdel.1 konstr. 2 no.1:32-33 Ja '56.  
(MLBA 9:5)

(Conveying machinery) (Brickmaking machinery)

KOSTYANKO, P. A.

Socialist Competition

Problems of organizing socialist competition for lowering the cost of each production operation, *Torfi. prom.*, 29, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195<sup>2</sup>~~3~~, Unclassified.

KOSTYANKOV, F. A.

29040 O Khozyaystvennom raschete. (Opyt Chernorazan Tresta). Torf. prom-st'.  
1949, No 9, S. 8-9

SO: Letopis' Zhurnal'nykh Sl. bog, Vol. 39, Nos 4-5, 1947



24,7000

S/058/62/000/005/097/119  
A061/A101

AUTHOR: Kostyanitsyn, Yu. B.

TITLE: The law of approach to saturation in cobalt-type ferromagnetics

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 72, abstract 5E548  
("Tr. Vses. sochn. energ. in-ta", 1961, no. 17, 67-70)

TEXT: An expression is found for the dependence of magnetostriction on the external magnetizing field in hexagonal ferromagnets. The calculation is made for the case of strong fields using the expansion in series by powers of the small angle formed by the vector of magnetization and the field. The law of approach to magnetostriction saturation is derived for an ideal homogeneous single crystal not subjected to external stresses. The law obtained is generalized for a polycrystal on the assumption that the distribution of the crystallite axes is isotropic and that interaction between them is absent. Expressions are derived for the law of approach to longitudinal and transverse magnetostriction saturation in a polycrystal.

O. Shiryayeva

[Abstracter's note: Complete translation]

Card 1/1

S/058/62/000/005/098/119  
A061/A101

Linear and volume magnetostriction ...

relations ( $I_p$  is the component of magnetization parallel to the field, and  $I_s$  is the saturation magnetization). Experimental data of Honda and Masumoto (Sci. Repts Tohoku Univ., 1931, v.20, 343) and Kaya (Sci. Repts Tohoku Univ., 1928, v.17, 1157) have been used to calculate the constants of Co magnetostriction.

O. Shiryayeva

[Abstracter's note: Complete translation]

Card 2/2

24,7000

S/058/62/000/005/008/119  
AO61/A101

AUTHOR: Kostyanitsyn, Yu. B.

TITLE: Linear and volume magnetostriction of hexagonal ferromagnetics

PERIODICAL: Referativnyy zhurnal' Fizika, no. 5, 1962, 72, abstract 5E549  
("Tr. Vses. zaochn. energ. in-ta" 1961, no. 17, 61-66)

TEXT: The method devised by N. S. Akulov (Ferromagnetism, ONTI, 1939) to calculate all even effects in cubic ferromagnetic crystals is now used to determine the properties of hexagonal ferromagnetics. An expression is obtained for the isotropic magnetostriction of a crystal whose basal plane is magnetically isotropic. Expressions are also obtained for the volume magnetostriction of Co-type crystals and of such with the axis of easy magnetization in the basal plane. Expressions for pseudoisotropic polycrystals are also given. If the magnetization curve is known, it is easy to find the curve of magnetostriction, i.e., the dependence of magnetostriction on the strength of the external field  $H$ . In this case, if the magnetization curve is not known, one may find the dependence of magnetostriction  $\lambda$  on the relative magnetization  $j = I_p/I_s$  from the cited

Card 1/2

AUTHOR: Kostyanitsyn, Yu. B.

126-2-26/30

TITLE: On the magnetostriction of ferromagnetics in the hexagonal system. (K Voprosu o Magnitostriksii Ferromagnetikov Geksagonal'noy sistemy).

PERIODICAL: "Fizika Metallov i Metallovedeniye" (Physics of Metals and Metallurgy), Vol.IV, No.2, 1957, pp.375 - 376 (USSR).

ABSTRACT: A relation is investigated for expressing the magnetostriction of single crystal, cobalt type ferromagnetics and the physical meaning of the magnetostriction constants is elucidated. By comparing the theoretical formulae with experimental data of the dependence of the magnetostriction on the magnetisation in the region of rotation, the magnetostriction constants of cobalt are evaluated. The calculations show that the magnetostriction is a linear function of  $j^2$  and this conclusion shows good agreement with the results of Honda and Masumoto (4). There is one table, 5 references, 2 of which are Slavic.

SUBMITTED: May 3, 1956.

ASSOCIATION: Moscow Institute of Railway Transportation Engineers. (Moskovskiy Institut Inzhenerov Zheleznodorozhnogo Transporta).

AVAILABLE:

KOSTYANTSEV, YU. B.

Kostyantsev, Yu. B. -- "The Theory of Embedding of Homomorphisms of a Homomorph System." Dokl. Akad. Nauk SSSR, 1977, 237, No. 5, 1000-1002. (Russian; Zhurnal-Matem. Jan 77)

SO: Sci 10, 12 July 1978

KOSTYANITSYN, Mikhail Nikolayevich; NIKIFOROV, Ya.D., kand. tekhn.  
nauk, nauchn.red.; MINENKO, V.M., red.

[Hydrology of the estuary region of the Dnieper and  
Southern Bug] Gidrologiya ust'evoi oblasti Dnepra i  
IU.Buga. Moskva, Gidrometeoizdat, 1964. 334 p.  
(ELSA 18-3)

KOSTYANTSYN, M.N.

Fluctuations in the wind-caused lowering and raising of the  
water level in the Bug Liman. Trudy GOIN no.66:55-79 '62.  
(MIRA 15:11)

(Bug Liman--Hydrology)

VENDROV, S.L.; KOSTYANITSYN, M.N.

Books on the hydrological regime of river estuaries prepared at the  
State Oceanographic Institute and published during 1956-1958.  
Biul.Okean kom. no.8:94-99 '61. (MIRA 15:1)  
(Bibliography--Estuaries)



KOSTYANITSYN, M.N.

Use of hydrometeorological data in the design, construction, and  
operation of hydraulic and other structures in river estuaries and  
seashore areas. Trudy GOIN no.49:198-215 '60. (MIRA 13:7)  
(Hydrology) (Estuaries)

KOSTYANITSYN, M.N.

Level variations in the lower course of the Dnieper River due to  
flow and rise processes. Trudy GOIN no. 49:47-60 '60.

(MIRA 13:7)

(Dnieper Delta region--Hydrology)

KOSTYANITSYN, M.N.

Organizing observations on sediment motion and warping in river  
estuaries and shore areas of the sea. Meteor.i gidrol. no.7:  
33-35 J1 '60. (MIRA 13:7)  
(Oceanographic research)

On the Connection of Net Subdivisions of the  
Hydrometeorological Service With Production  
Organizations

SOV/50-59-9-9/16

hydrometeorological stations is required. Despite the large network of stations and measuring points, the Hydrometeorological Service cannot meet, at present, the requirements of the different organizations. Many organizations carry out expeditions of their own. A coordinating organ is missing.

Card 2/2

3 (7)

AUTHOR:

Kostyanitsyn, M. N.

SOV/50-59.9-3/16

TITLE:

On the Connection of Net Subdivisions of the Hydrometeorological Service With Production Organizations

PERIODICAL:

Metecrologiya i gidrologiya, 1950, Nr 9, pp 39 - 40 (USSR)

ABSTRACT:

The plan for the maritime investigation and rationalization of the network of maritime hydrometeorological stations in 1958-1960 provides for investigations in the mouths of the following rivers: Volga, Neva, Amu-Darya, North Dvina, West Dvina, Danube, Don, Dnepr, South Bug, Kuban', Kura, Poronay and Kamchatka. In this connection, the necessity of a close contact of the maritime mouth stations with industry is pointed out. The collaborators of these special stations must know how the data of hydrological observations are used for the selection of marks for hydraulic structures, the scooping depths of the water area, for the building of various revetments of the banks, for the escort of ships on the crest of the tidal wave, etc. They must know how the data on the salt content, temperature and chemical properties are evaluated for the working out of measures for the regeneration of fish reserves, for irrigation, etc. A greater independence of the

Card 1/2

14-1-389

Observations on the Deformation of the Shores of the Tsimlyanskoye Reservoir made in 1952 - 1953 by the Moscow State Institute for the Design and Planning of Water Transport

Don River Valley. Wherever the shores were formed by a loess type of conglomerates and conglomerates with a partial admixture of sand, the shoreline receded 60 m in 2 years. A shoreline with a clay formation receded as much as 13 m during a navigational season. The submerged slopes of the newly formed silt shelves leveled off from 13-8° to 3-2° in the course of a single navigational season. The rate at which the shore receded did not diminish noticeably, which could be explained by the fact that the silt shelves were as yet relatively narrow.

ASSOCIATION: Oceanography Commission, Academy of Sciences, USSR  
(Okeanogr. komis. AN SSSR)

Card 3/3

14-1-389

Observations on the Deformation of the Shores of the Tsimlyanskoye Reservoir made in 1952 - 1953 by the Moscow State Institute for the Design and Planning of Water Transport

and bars had appeared in ravine-inlets. Comprehensive studies (including stationary observations at 7 points on the shore) made in 1953, after the reservoir had been filled to its normal working level (5.5 m), established the relationship between wind velocity and wave height (0.6 to 1.8 m) in various sections of the reservoir. This relationship takes into account different directions of the wind. Given an identical wind velocity, waves of the Tsimlyanskoye Reservoir are considerably shorter than those of the ocean. This fact is conducive to a more intense rate of deformation of the reservoir shoreline. The relatively small number of calm days during the spring and fall contribute to the recession of the shoreline and to the formation of silt shelves (by the washing out of some beaches and the alluviation of others). Other contributing factors are the steepness of the shores and the original formation of the submerged

Card 2/3

*RESERVATION CARD*

14-1-389

Translation from: Referativnyy Zhurnal, Geografiya, 1957, Nr 1,  
p. 37 (USSR)

AUTHORS: Vendrov, S.L., Kostyanitsyn, M. N., Pekishev, K. M.

TITLE: Observations on the Deformation of the Shores of the  
Tsimlyanskoye Reservoir made in 1952 - 1953 by the  
Moscow State Institute for the Design and Planning of  
Water Transport (Nablyudeniya Mosgiprovodtransa za de-  
formatsiyey beregov Tsimlyanskogo vodokhranilishcha v  
1952 - 1953 gg)

PERIODICAL: Tr. Okeanogr. komis. AN SSSR, 1956, Nr 1, pp. 160-162

ABSTRACT: A preliminary study made in August and September of 1952  
(before the reservoir had been filled) indicated that  
during the 4 months of operation of the reservoir an  
Card 1/3 important disintegration of the shores had taken place



RUGA, A.D.; KOSTYANETS, Ye.V.

Methods for choosing cable pairs in municipal telephone networks  
for high-frequency multiplexing. Vest. svyazi 23 no.5:8-9 My  
'63. (MIRA 17:4)

1. Starshiye inzhenery Nauchno-issledovatel'skogo instituta gorodskoy  
i sel'skoy telefonnoy svyazi Ministerstva svyazi SSSR.

RUGA, A.D.; KOSTYANETS, Ye.V.

Transmission parameters and effects of TG cables in a frequency  
band up to 600 kc. Elektrosviaz' 15 no.4:69-76 Ap '61.  
(MIRA 14:9)  
(Telephone lines)

KOST'YAN, Ye.Ya.

Резюме, опубликованное в журнале "Зоологический журнал"

New data on the propagation of polar bears. Zool.zhur.33 no.1:207-215  
Ja-F '54. (MLRA 7:2)

1. Nauchnaya chast' Leningradskogo zoologicheskogo parka. (Bears)

Anti-corrosion activities at the establishments... S/746/61/000/000/001/001

intense short-term current designed to remove the existing rust layer. Upon exhaustion of the short-term disk protectors the secondary protectors, in which the surface-to-volume ratio is much smaller, come into play to provide long-lasting protection. Numerous testimonials from ships' masters vouch for the effectiveness of this method. Mg-Al alloys are used in the protectors MA- (ML) -2, -4, -5, and MAC- (MLS-) -15-10. Biochemical corrosion has been counteracted by anti-growth paints and ultrasonic protection, which tests have shown to be effective. The older paints HNBK- (NIVK) -2 and -2A have not been found effective, and, following a test carried out in 1956-59, the Interservice Commission has recommended use of the anti-growth paint XB-53 (KhV-53). NIVK paint remains protective for a single navigation season, KhV-53 for 16 months, i.e., 2 navigation seasons. Tests have been completed on the XC-78 (KhS-78) anticorrosion paint and the XC-79 (KhS-79) antigrowth paint; both paints have been adopted for routine use. The vinyl coverings BHO2 (VNO2), XM-79 (KhM-79), and others are expected to become production items by 1961. The following antigrowth paint coverings are recommended for the Black Sea, the Sea of Okhotsk, the Sea of Japan, and other southern seas: 3XC-40 (EKHS-40), 4 coats; 3X-53 (EKH-53), 3 coats; for the Caspian, Baltic, and other Seas a 4-coat covering of 3XX (EKHZh) and others are recommended.

ASSOCIATION: Principal Specialist, Main Administration of Ship Economy,  
Ministry of the Navy.

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Anti-corrosion activities at the establishments... S/746/61/000/000/001/001

found, and 21-month tests in the Baltic Sea, in which a corrosion rate of 0.21-0.58 mm/yr was measured. Ethinol paints cost 75% less than red lead oxide and can be applied at temperatures as low as -20 to -25°C. More recently the Navy has used epoxy tars ЭД (ED) -5, -6, and -8 for propeller shafts, with a man-power saving of 84-88%. One of our establishments has developed a corrosion-protective bakelite covering over a parkerized metal surface, and instructions therefor have been disseminated. Bituminous coverings are used primarily in inaccessible portions of structures. In a search for more stable varnishes, field tests are being conducted with the thermoplastic paint ЯН-7А (YaN-7A), named after N.A. Yanov, Chemical Engineer. This nonpoisonous, long-life, paint provides a water- and air-tight seal. After 17 months' sea duty 95-98% of that paint remained serviceable. 3 to 5-year periods between dockings appear possible, affording savings even greater than the 6 million rubles currently conserved through the use of ethinol paints. The Navy has employed electrochemical corrosion protection since 1956. On some Caspian-Sea vessels two types of protectors are installed: On new ships, cylindrical protectors with an elevated potential are installed on the interior surface of petroleum tankers; the design mass of the protectors is calculated to last 4 years, i.e., enough to last out the time between overhauls. Such protectors are economically advantageous if the seawater-ballast carrying time is at least 20% of the total navigation time. In older ships two sets of protectors are used. The first set comprises shallow disks with a surface-to-volume ratio of 1:4 to 1:5, which yield an

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S/746/61/000/000/001/001

**AUTHOR:** Kostyamin, B.N., Engineer.

**TITLE:** Anti-corrosion activities at the establishments of the Ministry of the Navy.

**SOURCE:** Zashchita metallokonstruktsiy i mekhanicheskogo oborudovaniya gidrotekhnicheskikh sooruzheniy ot korrozii; po materialam soveshchaniya, provedennogo trestom "Gidromontazh" Ministerstva stroitel'stva elektrostantsiy SSSR 24-26 iyuniya 1960 g. Ed. by R.P. Nosov and others. Moscow. Gosenergoizdat, 1961, 39-41.

**TEXT:** A single 80,000-t tanker suffers annual corrosion damages of 200-300,000 rubles. Metal annually lost in corrosion by the Navy amounts to 3-4,000 tons. The USSR Naval Registry reports an average annual corrosion loss of 0.25 mm, with occasional peaks of 1-2 mm. Thus, hull platings 8-10 mm thick have a 10-12-year life expectancy; ship propellers may last 3-4 years. Most seriously affected are hulls with variable waterline. A notably dependable corrosion protection is afforded by ethinol and vinyl paints as compared with the time-tested red lead oxide and coal-tar paints. The Navy uses 4 coats of ЭКХ-40 (EKZh-40) paint which at 10-19°C dries in 78 hrs. Vinyl paints dry in 30 hrs in comparable circumstances. Red lead oxide requires 8 days, coal-tar paints 5 days. Thus, the new paints reduce off-service time. The protective properties of various paints have been checked by 3-month tests in the Black Sea, in which a corrosion rate of 0.04 mm/yr was

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PHASE I BOOK EXPLOITATION

SOV/4931

Kostyamin, Boris Nikolayevich, Il'ya Il'ich Kichkin,  
~~Yuriy Yur'yevich Siryy~~, and Boris Borisovich Sushkov.

Primeneniye ul'trazvuka na morskoy transporte (Use of Ultrasound  
in Marine Transportation) Moscow, Izd-vo "Morskoy transport,"  
1960. 60 p. 3,200 copies printed.

Ed.: V. Ye. Kazakevich; Ed. of Publishing House: Z. D. Ivanova;  
Tech. Ed.: B. A. Sarayev.

PURPOSE: This booklet is intended for those interested in the  
application of ultrasonics to the metallurgical and mechanical  
engineering aspects of shipbuilding.

COVERAGE: The booklet presents the fundamentals of the theory of  
ultrasonics and the use of ultrasonics in shipbuilding and  
marine maintenance. No personalities are mentioned. There are  
1 references: 19 Soviet, and 2 English.

TABLE OF CONTENTS:

Card 1/3

SAZONENKOV, Pavel Il'ich; KOSTYAMIN, B.N., red.; CHERNYAYEV, P.N., red.;  
LAVRENOVA, N.B., tekhn.red.

[Repair of ship mechanisms] Remont sudovykh mekhanizmov.  
Moskva, Izd-vo "Morskoi transport," 1959. 249 p.

(MIRA 14:2)

(Ships--Maintenance and repair)



KOSTYAMIN, B., inzhener.

More attention to plant laboratories. Mor.flot 15 no.12:21 D '55.  
(MLRA 9:3)

1. Glavmorprom.  
(Engineering laboratories)

KOSTYAL, Miklos, gepeszmernok

Testing of the cleaning shoe of harvester-threshers. Jarmu  
mezo gep 10 no.2:55-62 F '63.

1. Mezogepfejlesztési Intezet.

KOSTYAL, Laszlo, dr.

Pemphigoid morbidity. Nepegeszssegugy 40 no.9:226-234 S '59.

1. Kozlemeny a Bersad-Abauj-Zemplen megyei tanacs Semmerekais-  
korhaz (igazgato: Kende Istvan dr.) I. sz. gyermekosztalyrol  
(foorvos: Kostyal Laszlo dr.).  
(PEMPHIGUS statist)

KOSTYAL, Laszlo

Effects of perinatal skin infections on infant mortality in Borsod-Abauj-Zemplen County. *Nepegeszsegugy* 39 no.7:164-170 July 58.

1. Kozlemenye a Borsod-Abauj-Zemplen megyet Semmetweis-korhaz (igazgato: Kende Istvan dr.) gyermekosztalyarol (foorvos Kostyal Laszlo dr.)

(INFANT MORTALITY

in Hungary in Borsod-Abauj-Zemplen County, influence of perinatal skin dis. (Hun))

(SKIN DISEASES, in inf. & child

perinatal dis., influence on inf. mortal. in Hungary (Hun))

KOSTYAL, Laszlo, dr.

Hospital regional work. Nepegeszssegugy 37 no.5:123-127 May 56.

1. Kozlem. a miskolci megyei Semme weis-korhaz (igaz. Kende Istvan dr.) gyermekosz. (foorvos: Kostyal Laszlo dr.)

(HOSPITALS

pediatric, in Hungary, regional work (Hun))

KOSTYAL, Laszlo, dr.

Problems of nutrition disorders, illustrated by county data.  
Befgyogy. vaper. szemle 8 no.6:278-287 Nov 54.

1. Borsod--Abauj--Zemplen Megyei Tanacs, Semmelweis Korhaza  
(Igazgato-foorvos: Kende Istvan dr.) gyermekosztalyanak  
(foorvos: Kostyal Laszlo dr.) kozlemeny.  
(INFANT NUTRITION DISORDERS, statistics  
in Hungary, causes & mortal)

KOSTYAKOVSKIY, O.B. [Kistiakivskiy, O.B.]

Characteristics of the geographical distribution of ornamental  
features in birds. Visnyk Kyiv. un. Ser. biol. no. 123-126

1974-75

(MIRA 15:6)

(COLOR OF BIRDS)

L 11532-66

ACC NR: AR6001130

and Puppis  $\sim 2.5-4$  kps). An attempt is made to localize the spiral arms in the vicinity of the sun. The location of the spiral arms according to the data of the author is shown, and so is the distribution of the H II regions, the clusters of hot giants, the  $\phi$ -B associations, and the neutral hydrogen; the location of the arms according to radio-astronomy data is presented. The spirals distinguished by optical methods do not coincide with the spirals from radio observations. Bibliography of 12 titles. G. Medvedeva

SUB CODE: 03

Card 2/2



L 11532-66

FBD/EWT(1)

GW/WS-2

ACC NR: AR6001130

SOURCE CODE: UR/0269/65/000/009/0032/0032

SOURCE: Ref. zh. Astronomiya, Abs. 9.51.288

AUTHOR: Kostyakova, Ye. B. <sup>55</sup>TITLE: The distances of stellar clouds of the Milky Way and the spiral structure of the Galaxy

REFERENCED SOURCE: Astron. tsirkulyar, no. 293, apr. 22, 1964, 1-4

TOPIC TAGS: stellar astronomy, light absorption, galaxy, galactic nebula, Milky Way, spectrophotometry, galactic structure, giant star, star cluster, radio astronomy

TRANSLATION: Using the data of A. S. Sharov (RZhAstr, 1964, 2.51.306) on light absorption in the Galaxy, the author took into account the influence of interstellar light absorption on the observed spectrophotometric temperature. The distances 1, 2, 3 kps, and  $\infty$  were examined for each region studied of the Milky Way. The results indicate that the observed reddening of the clouds of the Milky Way in the direction of the galactic center is preserved when absorption is taken into account. For cold clouds,  $T_c$  varies little with a change in the distances; for clouds with a high observed  $T_c$ , a slight increase in distance leads to a sharp increase in  $T_c$ , which makes it possible to estimate the upper limit of distances for a number of hot clouds (the clouds in Cygnus, Cassiopeia, Vela, Carina,  $r_{lim} = 2$  kps) in Lacerta, Monoceros,

Card 1/2

UDC: 523.851.1

VORONTSOVA-YAMINOV, D.A.; KOSTYAKOVA, Ye.B.; DOKHUYAYEVA, O.D.; ARKHLOVA,  
V.P.

Absolute intensities of emission lines of planetary nebulae. Part 2.  
Astron. zhur. 42 no.4:730-739 1965.

(MIRA 18:8)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

KOSTYAKOVA, Ye.B.

Distances between star clouds of the Milky Way and the spiral  
structure of galaxies. Astron. zhur. 42 no.3:537-542 My-Je '65.  
(MIRA 18:5)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

VORONTSOV-VEL'YAMINOV, B.A.; KOLTYAKOVA, Ye.I.; DOBUCHEVAYA, O.D.;  
ARKHIPOVA, V.P.

Revised absolute intensities of the emission lines of 25 planetary  
nebulae. Astron.zhur. 42 no.2:444-446 Mr-Apr '65.

(MIRA 18:4)

1. Gosudarstvennyy astronomicheskii Institut im. P.K. Shklovskogo.

ACCESSION NR: AP4040844

stellar absorption of light. This conclusion with respect to the reddening of the Milky Way in the direction of the galactic center is in agreement with the results of other methods for investigation of the Galaxy and also with the results of observation of other galaxies. The observed reddening can be attributed to an increase of the relative percentage of red stars in the direction of the center of the Galaxy. This region with a predominance of red stars has considerable angular dimensions. Interesting examples of spectrophotometric maps accompany the text. For example, in the case of the large cloud of the Milky Way in Cygnus, where a detailed study was made of three regions partially overlapping one another, it was possible to map the areas by means of "spectrophotometric isotherms" (Fig. 1 of the Enclosure). The figure shows the systematic reddening of the cloud in the direction of lesser galactic longitudes and in the direction of the galactic equator. Orig. art. has: 1 formula, 7 figures and 3 tables.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut imeni P. K. Shternberg  
(State Astronomical Institute)

SUBMITTED: 27Aug63

DATE SEL: 15Ju164

ENCL: 01

SUB CODE: AA

NO REF SOV: 011

OTHER: 015

Card 2/3

ACCESSION NR: AP4040844

S/0033/64/041/003/0505/0518

AUTHOR: Kostyakova, Ye. B.

TITLE: Spectrophotometric observations of bright regions of the Milky Way

SOURCE: Astronomicheskii zhurnal, v. 41, no. 3, 1964, 505-518

TOPIC TAGS: astronomy, stellar astronomy, Milky Way, spectrophotometry, galactic center, interstellar light absorption, star, red star, spectrophotometric temperature

ABSTRACT: An investigation was made of the integral spectra of bright regions of the Milky Way; this study was carried out in 1955-1956 at Alma-Ata and in 1960-1961 in the Indian Ocean area. The observations made possible a more precise determination of the variations in spectrophotometric temperature with galactic longitude and confirmed the previously derived conclusion that there is systematic reddening of the Milky Way in the direction of the center of the Galaxy. It has been established that over a considerable extent - from  $l \approx 100^\circ$  to  $l \approx 260^\circ$  - the spectrophotometric temperature of the Milky Way has a rather high value: about 7,000C. Beginning with  $l \approx 70-80^\circ$  there is a smooth drop in the spectrophotometric temperature in the direction of the center of the Galaxy, where it attains 3,500-4,000C. This reddening is real and cannot be caused by the inter-

Card 173

VORONTSOV-VEL'YAMINOV, B.A.; KOSTYAKOVA, Ye.B.; DOKUCHAYEVA, O.D.;  
ARKHIPOVA, V.P.

Absolute intensities of emission lines of planetary nebulae. Part 1.  
Astron.zhur. 41 no.2:255-263 Mr-Apr '64. (MIRA 17:4)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

KOSTYAKOVA, Ye.B.

Spectrophotometry of bright regions of the Milky Way. Astron.  
zhur. 41 no.3:505-518 My-Je '64. (MIRA 17:6)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.  
Shternberga.



ABKHILIOVA, V.P.; KOSTYAKOVA, Ye.B.; SHAROV, A.S.

Spectrometry of the object 38-273. Astron. tizn. no. 251:2-4  
J1 '63. (MIRA 17:5)

1. Gosudarstvennyy astronomicheskiy institut imeni Shternberga.

DOKUCHAYEVA, O.D.; KOSTYAKOVA, Ye.B.

Preliminary tests of the experimental astronomical film "Pankhrom  
with  $\lambda$  limit 660 m  $\mu$ . Astron. tsir. no.211:17-20 My '60.  
MIRA 13:10)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga,  
Moskva.

(Astronomical photography--Equipment and supplies)

87015

S/034/60/000/209/002/009  
E032/E114

Spectrophotometry of Mars During the 1958 Opposition

spectrophotometric gradient for Mars was found to be  $G_M = 3.77$   
and the mean spectrophotometric temperature  $T_S = 3800 \pm 50^\circ$ .  
The colour index calculated from the formula  
 $C = (7200/T_S) - 0.45$  was found to be  $+1^m.44$ . The colour index  
differs from that obtained by Teifel (Astronomicheskiy tsirkulyar  
Issue No. 202) by  $0^m.1$ .  
There are 1 table and 1 Soviet reference.

ASSOCIATION: GAISH, Moscow  
(State Astronomical Institute imeni Shternberg,  
Moscow)

SUBMITTED: February 18, 1960

Card 3/3

87015

S/034/60/000/209/002/009  
E032/E114

## Spectrophotometry of Mars During the 1958 Opposition

lay within the experimental error. For each spectrum of Mars and the corresponding spectrum of  $\alpha$  Aur the relative spectrophotometric gradient  $\Delta G$  was calculated. The final results are summarised in the following table.

Number	Type of Plate	$\Delta G$	$\Delta G$
1	Agfa - Astro unsens.	+0.92 )	+0.97 $\pm$ 0.02
2	"	+0.99 )	
3	"	+0.99 )	
4	"	+0.99 )	
5	Agfa - Astro Panchrom.	+1.26 )	+1.20 $\pm$ 0.04
6	"	+1.20 )	
7	"	+1.14 )	
Average			+1.07 $\pm$ 0.05

Using the temperature and spectrophotometric gradient scales accepted at the present time, it was found that the absolute spectrophotometric gradient of  $\alpha$  Aur was  $G_{\alpha} = 2.64-2.78$ . The finally adopted value was  $G_{\alpha} = 2.70$ . On this basis the average absolute

Card 2/3

87015

3,1550 (1057,1129)  
 3,1520 (1062,1168)

S/034/60/000/209/002/009  
 E032/E114

AUTHORS: Kostyakova, Ye.B., and Karimova, D.K.

TITLE: Spectrophotometry of Mars During the 1958 Opposition

PERIODICAL: Astronomicheskii tsirkulyar, 1960, No. 209, pp. 8-10

TEXT: On November 19-20, 1958 seven spectrograms of Mars were obtained using the slit quartz spectrograph АСП-6 (ASP-6) (dispersion 240 Å/min at H $\gamma$ ) set up at the Newtonian focus of the 70 cm parabolic reflector. Agfa-Astro unsens. and Agfa-Astro Panchrom. plates were used (exposure 1-9 min). The spectra were expanded (from 0.2 to 0.6 mm) with the aid of a motor which displaced the plate holder at a constant speed. The spectrograph's slit width was 0.2 mm, i.e. 1/10th of the diameter of the image of Mars at the slit. The longitude of the central meridian of the planet during the observations was 95°.  $\alpha$  Aur was chosen as the comparison object. The spectrograms were calibrated with the aid of the spectrosensitometer УСП-73<sup>28</sup> (ISP-73). All the photographs were developed at the same time and characteristic curves were plotted for different wavelengths, although in the final analysis an average curve was taken for each type of plate since the departures of the separate curves from the average curve

Card 1/3

EYGENSON, Boris Semenovich; AGEKYAN, T.A., red.; KOSTYAKOVA, Ye.B.,  
red.; MURASHOVA, N.Ya., tekhn.red.

[Extragalactic astronomy; introduction to the study of galaxies]  
Vnegalakticheskaya astronomiya; vvedenie v izuchenie galaktik.  
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 414 p.  
(MIRA 14:2)

(Galaxies)

KOSTYAKOVA, Ye.B.

Investigating the space distribution of class B stars in Cepheus  
and Cygnus. Soob.GAISH no.106:23-33 '59. (MIRA 13:10)  
(Stars--Distribution)

23696

Determination of color indices ...

S/035/61/000/004/026/058  
A001/A101

tion curve plotted on the basis of determined color indices and the known photo-electric CI of Stebbins, Huffer and Whitford. The reduction curve represents a line close to a straight line with deviations of individual points from the average curve not exceeding 0.03. There are 5 references.

N. Parova

[Abstracter's note: Complete translation]

Card 2/2



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S/035/61/000/004/026/058  
A001/A101

3,1520

AUTHOR: Kostyakova, Ye.B.

TITLE: Determination of color indices of B stars from spectra obtained with an objective prism

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 4, 1961, 23-24, abstract 4A255 ("Soobshch. Gos. astron. in-ta im. P.K. Shternberga", 1959, no. 106, 3 - 9)

TEXT: The purpose of this study was development of a method for determining color indices of B stars from spectrograms obtained with an objective prism. Spectrograms of two Milky Way regions, in Cepheus and Cygnus, were used which were obtained with a 20-cm camera with an objective prism. Dispersion was  $\sim 150 \text{ \AA/mm}$  at  $H\gamma$ . Two regions of the spectrum were established in which color indices are determined with the highest precision. These are region  $\lambda\lambda 3815-3910$  in the short wavelength spectrum band and  $\lambda\lambda 4500 - 4710$  in the long wavelength band. Color index was calculated as an arithmetic average from three values:  $C_I = m_{3910} - m_{4500}$ ;  $C_{II} = m_{3860} - m_{4600}$ ;  $C_{III} = m_{3815} - m_{4700}$ . The author presents a reduc-

Card 1/2

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Preliminary results of the spectrophotometry of bright areas of the  
Milky Way. Astron.tsir. no.192:13-14 My '58. (MIRA 11:10)

1.Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga,  
Moskva.

(Milky Way) (Spectrophotometry)

VORONTSOV-VEL'YAMINOV, B.A.; DOKUCHAYEVA, O.D.; YEFREMOV, Yu.I.;  
KOZARENKO, B.I.; KARIMOVA, D.K.; KOSTYAKOVA, Ye.B.; LOZINSKIY, A.M.;  
MANOVA, G.A.; TSITSIN, F.A.; SHAROV, A.S.

Observations of Arend-Roland's comet (1956 h). Astron. tsir.  
no.180:2-4 My '57. (MIRA 13:4)

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(Comets--1956)

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(Dublin--Astronomy--Congresses) (MLBA 10:8)

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Spectrophotometry of six bright clouds of the Milky Way. Izv.  
Krym.astrofiz.obser. 12:118-133 '54. (MIRA 13:4)

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Shternberga.  
(Milky Way)

1. KOSTIANKOVA, E. B.
2. USSR (800)
4. Milky Way
7. Spectrophotometry of bright clouds of the Milky Way. Astron. Jour., No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, \_\_\_\_\_ 1953. Unclassified.

1. KOSTYAKOVA, YE. B.
2. USSR (600)
4. Rainbow
7. Moon rainbow. Priroda 41 no. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February, 1953, Unclassified.

KOSTYAKOVA, YE. B.

Defended his Candidates dissertation in the Mechanics and Mathematics Faculty of Moscow State University on 7 May 1952.

Dissertation: "An Investigation of the Integral Spectrum of Bright Clouds in the Milky Way With the Aid of Soviet Illuminating Spectrographs."

SO: Vestnik Moskovskogo Universiteta, Seriya Fiziko-Matematicheskikh i Yestestvennykh Nauk, No. 1, Moscow, Feb 1953, pp 151-157: transl. in W-29732, 12 April 54, [REDACTED]



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SO: Vechernaya Moskva January-December 1952

189T4

USSR/Astronomy - Spectrum of Galaxy May/Jun 51

"Investigation of Integral Spectrum of the Bright Cloud in the Milky Way," Ye. B. Kostyukova, State Astr Inst Imeni Shternberg

"Astron Zhur" Vol XXVIII, No 3, pp 184-191

During summer of 1947 bright cloud of Milky Way in Cygnus was studied in mountain observatory of Alma-Ata by means of powerful nebular spectrograph. Energy distribution was studied within interval of 4,900-6,400 Å. Abs energy distribution in spectrum of Milky Way was obtained by comparison with solar spectrum.

189T4

USSR/Astronomy - Spectrum of Galaxy May/Jun 51  
(Contd)

It was found to equal  $2.8 \cdot 10^{-7}$  erg/sec per sq deg. Author was assisted by Acad Resenkov, Pyaskovskaya-Pesenkova, G. F. Sitnik, and M. G. Karimov.

189T4

KOSTYUKOVA, Ye. B.

TEL'PUKHOVSKIY, V.B.; DMITRENKO, T.A.; ZELENIN, I.Ye.; KOSTYAKOVA, G.K.;  
RAKHNAMIN, B.P.; BORISOV, Yu.S., otv. red.; KRUCHINA, N.Ye., red.;  
FEDOROV, A.G., red.; LYUBUSHKINA, Ye., red.; YEGOROVA, I., tekhn.  
red.

[In the land of wide-open spaces and heroic deeds; youth in the  
virgin lands] V kraiu prostorov i podvigov; molodezh na tseline.  
Sbornik dokumentov. Moskva, Izd-vo TsK VLKSM "Molodaia gvardia,"  
1962. 278 p. (MIRA 15:5)

(Agricultural laborers)